

(No Model.)

E. G. LATTA.
TRACE BUCKLE.

No. 283,259.

Patented Aug. 14, 1883.

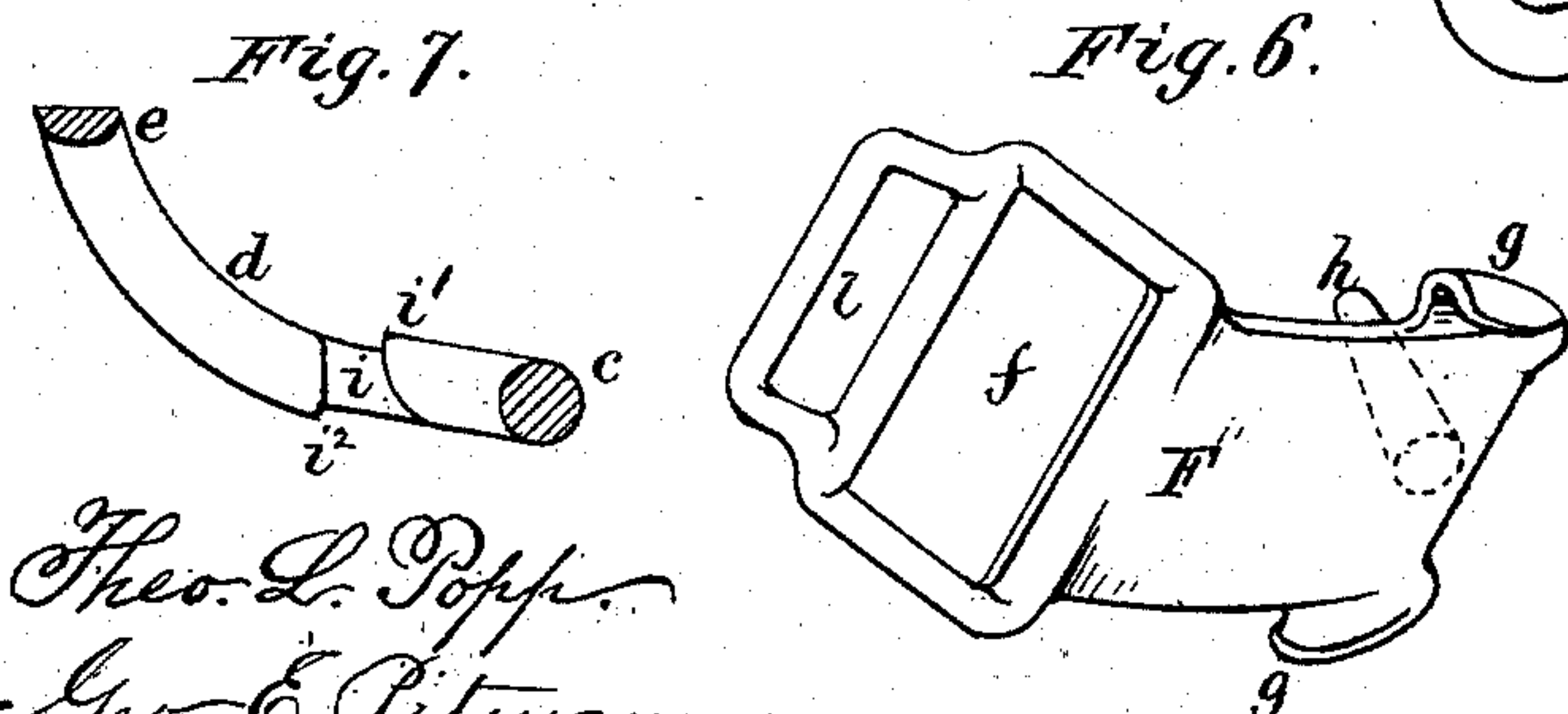
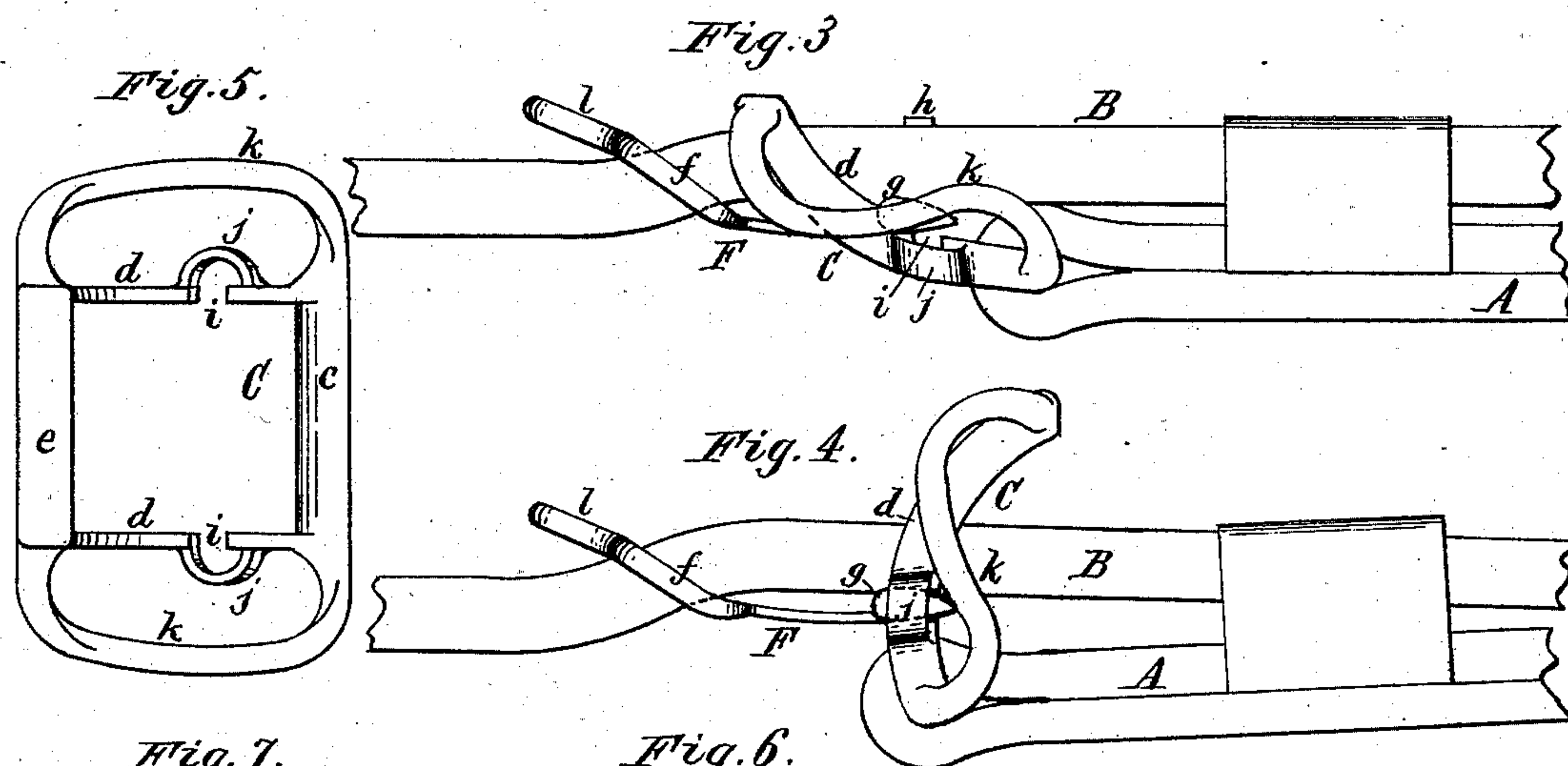
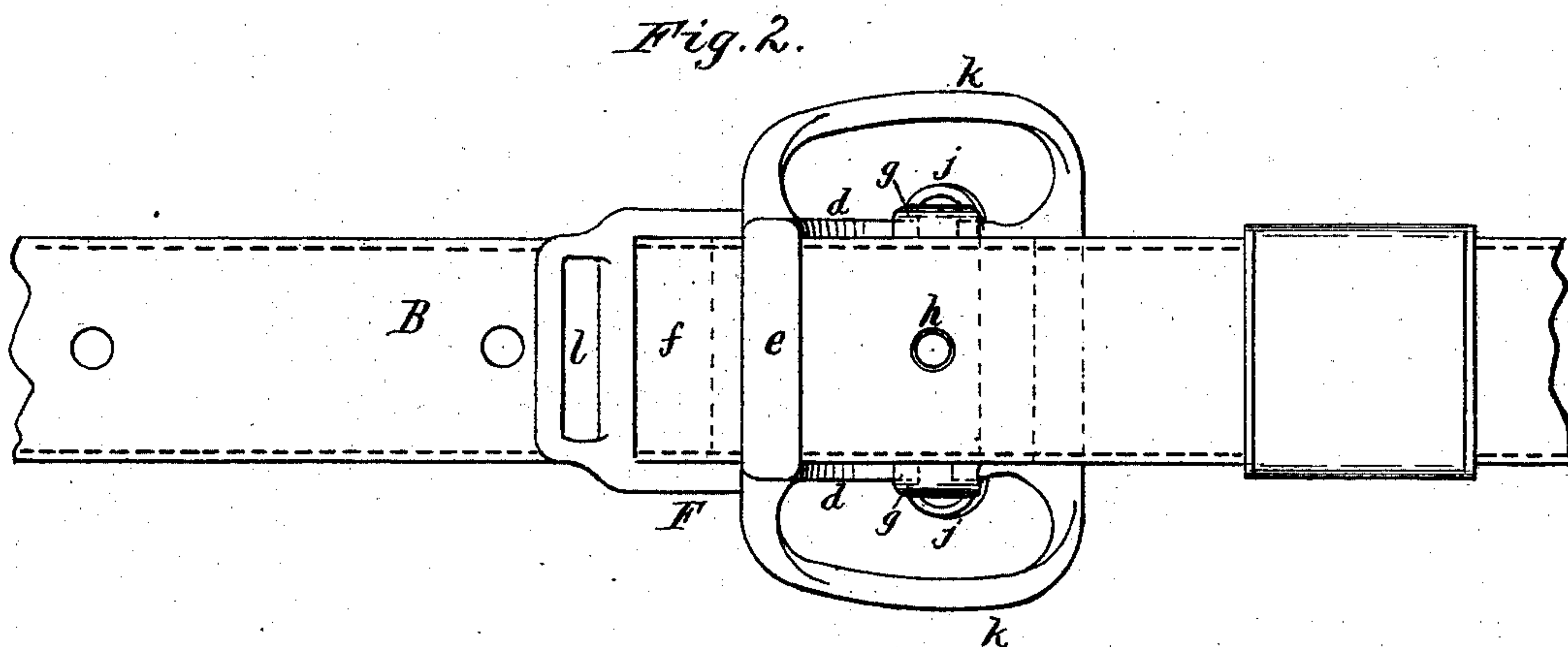
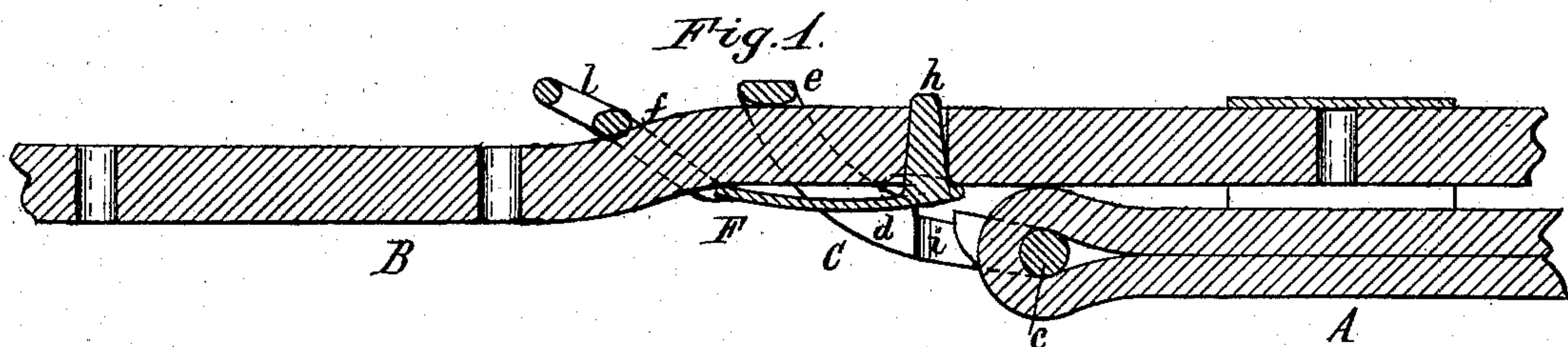


Fig. 5.

Fig. 6.

Fig. 7.

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UNITED STATES PATENT OFFICE.

EMMIT G. LATTA, OF FRIENDSHIP, NEW YORK, ASSIGNOR OF TWO-THIRDS
TO ADRIAN C. LATTA, OF SAME PLACE, AND HARVEY D. BLAKESLEE,
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TRACE-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 283,259, dated August 14, 1883.

Application filed May 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, EMMIT G. LATTA, of Friendship, in the county of Allegany and State of New York, have invented new and useful Improvements in Trace-Buckles, of which
5 the following is a specification.

This invention relates to an improvement in that class of trace-buckles which are composed of two parts, one being provided with a stub-tongue and having a loop whereby it is held
10 to the trace, and the other being attached to the hame-tug and bearing upon the trace, so as to hold it in engagement with the tongue.

The object of my invention is to produce a
15 buckle of this character, which will securely clamp the trace in rear of the tongue and prevent the tongue from tearing the leather, and which will permit the trace to be adjusted or the buckle to be shifted on the trace without
20 removing the trace from the buckle or hame-tug loops.

My invention consists of the improvements which will be hereinafter fully set forth, and pointed out in the claims.

25 In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of my improved buckle. Fig. 2 is a side elevation thereof. Fig. 3 is an edge elevation of the buckle in the position in which it secures the
30 trace to the hame-tug. Fig. 4 is a similar view, showing the two parts of the buckle in the position in which they can be separated preparatory to adjusting the trace. Fig. 5 is a side elevation of the buckle-frame. Fig. 6
35 is a perspective view of the tongue-plate. Fig. 7 is an inside sectional elevation of one of the side bars of the buckle-frame.

Like letters of reference refer to like parts in the several figures.

40 A represents the hame-tug and B the trace.

C represents the buckle-frame, which is provided with a front cross-bar, *c*, to which the hame-tug is attached, side bars, *d d*, and a rear cross-bar, *e*, which bears against the outer
45 side of the trace.

F represents the tongue-plate, which is provided at its rear end with a loop, *f*, through which the trace passes, and at its front end with laterally-projecting ears *g*, which over-
50 lap the side bars, *d d*, of the buckle-frame, and

ride upon the outer curved or inclined sides of the latter and tighten the buckle.

h represents the stub-tongue, which is cast on the tongue-plate F. The latter is made concave on the side adjacent to the trace, as
55 clearly represented in Fig. 1.

i represents openings formed in the side bars, *d d*, of the buckle-frame, for passing the ears or lugs *g* of the tongue-frame through the side bars. The openings *i* are arranged near the
60 front ends of the said side bars far enough from the hame-tug to clear the latter, and in such position that upon turning the buckle-frame on its front bar, *c*, as a pivot to the position indicated in Fig. 4, the openings *i* may be
65 brought in line with the ears *g* of the tongue-plate, so that the latter can pass through the openings *i*, thereby disengaging the tongue-frame from the buckle-frame. The openings
70 *i* are inclosed on their outer sides by curved bars *j*, which connect the two portions of each side bar. The bars *j* are arranged with their outer sides below the outer sides of the side bars, so that the overlapping edges of the ears
75 *g* do not come in contact with the curved bars *j*.

k represents side loops formed on the buckle-frame C for attaching the pad-strap and girth thereto. When these side loops are used on the buckle-frame, the curved bars *j* may be
80 dispensed with, as well as the front portions of the side bars, which lie between the openings *i* in the front cross-bar, *c*. The side loops, *k*, are preferably curved like an S, as represented in Figs. 3 and 4, so that the main or
85 central portions of the side bars lie about parallel with the trace, thereby preventing the twisting of the girth and pad straps. The front upper edges of the openings *i* are preferably made higher than the rear edges, as
90 shown at *i'*, in Fig. 7, so as to guide the ears *g* over the openings when the draft is applied and cause them to enter the openings when the frame is reversed for that purpose. The lower rear edges of the openings are preferably
95 lowered, as shown at *i''* in Fig. 7, so as to guide the tongue-plate into the openings when it is desired to push the tongue-plate into the buckle-frame after adjusting the trace.

The two parts of the buckle are attached to- 100

gether in the following manner: The tongue-plate is slipped over the end of the trace by means of the loop *f*, and inserting the tongue in one of the holes in the trace. The buckle-frame is then tipped forwardly, so as to bring the openings in line with the ears of the tongue-frame, and the latter is then pushed with its ears through the openings in the buckle-frame. The buckle-frame is then tipped back, so as to bring the ears *g* against the outer sides of the side bars, *d*, of the tongue-frame, when the buckle is ready for use. As soon as the draft is applied, the bar *e* of the buckle-frame bearing against the outer side of the trace presses the trace into the cavity of the concave plate *f*, thereby bending the trace and relieving the tongue from a large portion of the strain. The ears *g* are at the same time drawn up on the curved or inclined side bars, *d*, thereby wedging the plate *f* against the rear side of the trace and pressing the latter against the rear side of the cross-bar *e* of the buckle-frame. In order to adjust the trace the buckle-frame is tipped forwardly, as represented in Fig. 4, when the tongue-plate can be separated from the buckle-frame and adjusted on the trace, while by a reverse movement the parts are again connected and made ready for use.

The plate *F* may be provided with openings for the escape of any water which may enter between the trace and the plate.

When the curved connecting-bars *j* and the short front portions of the side bars, *d*, are omitted, the tongue-plate *F* may be provided

with laterally-projecting eyes, which slide on or surround the side bars, *d*, instead of the ears *g*, which overlap the side bars.

l represents a loop formed on the rear cross-bar of the loop *f*, for attaching the side strap thereto, or, if preferred, this loop may be formed on the cross-bar *e* of the buckle-frame.

I claim as my invention—

1. The combination, in a buckle, of a frame provided with openings *i* and a tongue-plate having lateral projections *g*, adapted to be passed through the openings *i*, and to ride on the side bars of the buckle-frame, substantially as set forth.

2. The combination, in a buckle, of a frame having its side bars provided with openings *i* and curved connecting-bars *j*, and a tongue-plate provided with laterally-projecting ears *g*, substantially as set forth.

3. In a buckle, a frame having its side bars provided with openings *i*, having raised upper front edges, *i'*, substantially as set forth.

4. A buckle-frame having its side bars provided with openings *i*, having depressed lower rear edges, *i''*, substantially as set forth.

5. A tongue-plate adapted to rest in a frame, *C*, and composed of a concave plate, *F*, laterally-projecting curved ears *g*, and a loop, *f*, substantially as set forth.

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Witnesses:

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